

# Change in Work Values and Norms among Dutch Young Adults: Ageing or Societal Trends?

Mandy E.G. van der Velde

*Vrije Universiteit Amsterdam, The Netherlands*

Jan A. Feij

*Vrije Universiteit Amsterdam, The Netherlands*

Hetty van Emmerik

*Universiteit Utrecht, The Netherlands*

In the present study, data were analysed longitudinally on the basis of lifespan developmental psychology to determine if work values and norms change as a result of ageing/maturation or societal trends (i.e. period effects between two measurement waves). Moreover, data were collected to determine if the younger participants showed more change than the older participants. Participants were three age groups, 18, 22, and 26 years old, respectively, in 1987 ( $N = 806$ ). The participants completed a questionnaire in 1987 and 1991. Measures of work values and norms included Absolute Work Centrality, Relative Importance of Work, Obligation Work Norm, Emancipation Norm and Spare Time Norm, and Intrinsic, Extrinsic and Social Work Values. Using tests of differences in over time correlation coefficients, paired *t*-tests and analyses of variance, the results show that work, and especially intrinsic work values become more important by ageing than by societal trends and that younger participants indeed changed more than the older participants. These results underscore the plea of Schulenberg, Vondracek, and Kim (1993) for a combination of a developmental and individual difference perspective of work value change in career theory and practice.

---

Requests for reprints should be sent to Dr Mandy E.G. van der Velde, Department of Business Administration, Vrije Universiteit Amsterdam, De Boelelaan 1105, 1081 HV Amsterdam, The Netherlands; email: [Evelde@econ.vu.nl](mailto:Evelde@econ.vu.nl).

This publication is based on data collected as part of the research programme entitled "The process of social integration of young adults" (SI-project). This research programme is executed jointly by the Department of Social Research Methodology and the Department of Work and Organisational Psychology of the Vrije Universiteit Amsterdam, The Netherlands.

Many recent empirical studies support the hypothesis that people change when they go through important transitions in life (Brett, 1982; Krau, 1983; Nicholson, 1984). For example, the studies of Tiggemann and Winefield (1989) show that the transition from school to work positively affects psychological health. Van der Velde, Feij, and Taris (1995) further demonstrated effects on certain personality traits, such as lower levels of boredom susceptibility and neuroticism. Although there are indications that shock experiences may occur when entering the labour force (Wanous, 1992; West, Nicholson, & Arnold, 1987), these studies found mainly positive effects, explained by the fact that through working, people become financially and psychologically independent and feel that they contribute to society.

Another important transition that has been studied is job change. For example, Clarke (1980) and Van der Velde and Feij (1995) found that people who voluntarily change jobs experience more positive work characteristics and outcomes in time than people who stay in the same job. These studies also show that for some variables both the transition group, as well as the nontransition group, changed in the same direction. For example, in the study of Van der Velde, Feij, and Taris (1995), both school-leavers and participants who stayed in school became more impulsive and extraverted in time, they experienced a better quality of life, and they attached more importance to intrinsic work aspects in time. Also, in the study of Van der Velde and Feij (1995), all subgroups (participants who made a job transition, as well as participants who stayed in the same job, although not both to the same degree), generally experienced less opportunity for promotion in time (this could be in the same or another organisation depending on whether they changed jobs or stayed in the same job), more socialisation tactics, more work pressure, and a better fit between work and education. The authors therefore concluded that the transition induces *extra* positive changes (i.e. above and beyond more general changes).

These general changes may result from the fact that people in all of these groups grew older and became more mature, whereas more specific changes in people may be determined by transitions in work status. Krau (1989) studied the transition in life activity saliencies and work value preferences for the period between junior high school and adult employment and stated that modification in age-related experience affects all members of the population, whereas changes in social identity produced by social mobility occur only in parts of the population. In other words, ageing is a general process that affects all people, while transitions only occur in specific groups of people who may change something extra or differently.

Lifespan developmental psychology also mentions these different factors as causes of change in people, referred to as normative and nonnormative factors (Vondracek, Lerner, & Schulenberg, 1986). Normative causes are

age-related or history-graded changes in people and the timing of change is more or less equal for most people in a specific (sub)culture for a certain age group. Biological maturation processes and socialisation processes in the family, in school, and at work are examples of factors that may foster normative changes (Verhofstadt-Deneve, 1985). By contrast, nonnormative causes of change are events that do not occur for most individuals at a certain age in a specific (sub)culture (Bergman, Eklund, & Magnusson, 1991), but they are significant life experiences, such as transitions, that alter the individual life course.

In addition to examining the effects of transitions on processes of change among young adults, the focus of this study was on the effects of ageing. Lifespan developmental theory is not specific with regard to the direction of change, it (only) acknowledges that development is multiply determined. According to Pryor (1980), ageing generally has positive effects on people, because people strive to attain self-fulfilment in life and to be in an optimal environment to realise this. However, this may only apply for younger people and growing older may have other effects for senior people.

Another important aspect with regard to ageing is that the degree and the direction of change for people of the same age are more or less the same (Magnusson, 1990). Generally, young people change more than older people. For example, Lorence and Mortimer (1985) found that in older groups job involvement was more stable than in younger groups. Also, Caspi and Bem (1990) concluded, from a review of longitudinal studies, that stability coefficients tend to increase as the age of the participants increases. Costa and McCrae (1980; see Caspi & Bem, 1990, p. 550) reported that there is little evidence for maturational changes in personality (measures of neuroticism, extraversion, and openness to experience) during adulthood in their longitudinal studies. Also, Magnusson and Bergman (1990) asserted that after the age of 30, personal change is very restricted (cf. Schulenberg, Vondracek, & Kim, 1993).

Therefore, the focus of this study was on participants between the ages of 18 and 30 (young adulthood). This is a period in the life cycle during which people are particularly prone to change (Bachman, O'Malley, & Johnston, 1978; Lorence & Mortimer, 1985). The purpose was to examine whether young adults change positively in time by ageing/maturation. Moreover, three different age groups were studied in order to determine if younger people indeed change more than older people. Not all characteristics may change in the same way and to the same extent as a result of ageing and the focus of this study was on work values and norms.

## Work Values and Norms

Most authors generally regard work values as relatively changeable personal characteristics compared to other characteristics, such as personality traits. Although some specific values may be more stable than others, values are (Vondracek et al., 1986, p. 118): “. . . long assumed to be trait-like, [but] also have state-like dimensions”.

In the numerous studies performed on work values, many different concepts are examined that are measured in different ways (England & Elizur, 1996). For example, Schulenberg et al. (1993) used Pryor's Work Aspect Preferences Scale (Pryor, 1980) and Krau (1989) used Super's measures. As a consequence, the results of these studies are difficult to compare. It is therefore important to clearly categorise and operationalise the concepts used. In the present study, work values are based on the categorisation of the MOW International Research Team study (1987). Following this study, the meaning of work is conceptually defined in terms of three domains: (1) work centrality as a life role; (2) societal norms about working, and (3) importance of work goals (Harpaz, Claes, Depolo, & Ruiz Quintanilla, 1992).

*Work Centrality* as a life role can be measured directly. That is, work centrality defined as a general belief about the value of working in one's life is assessed by asking how central and important the role of working is in one's life in *absolute* terms (MOW, 1987; Harpaz et al., 1992). Work centrality can also be measured indirectly by comparing the importance of the work role with other life roles (*relatively*), which for young people consist mainly of relationships and family.

Some studies (MOW 1987) regard absolute work centrality as a relatively stable variable. In earlier studies (e.g. Meltzer, 1963) it was found that the degree to which work is central in life generally increases by ageing, and work becomes a reality for young people because they are striving to become economically independent as they age. Usually, a high level of absolute work centrality is considered beneficial because of the relationship between concepts such as job satisfaction (Dubin & Champoux, 1977), organisational commitment (Jans, 1989), and low absenteeism and turnover (Blau, 1989; Lee & Mowday, 1987).

The relative importance people attach to work is expected, just as for absolute work centrality, to increase as a result of ageing. For example, the degree to which people consider it realistic to work in certain phases of life, such as the phase of being married and/or having younger children (Heesink, 1992), will increase when people grow older. It is likely that when young people start their own family, for which they are responsible, they will consider work more important. It has been demonstrated that marriage

significantly enhances stability in the early work career and that married individuals are advantaged with respect to many work outcomes (Mortimer, Lorence, & Kumka, 1986).

*Societal Norms about Working* may also change as a result of ageing processes. Norms about working focus on what one should expect from work (entitlements) and, in turn, what one is expected to contribute through working (obligations) (MOW, 1987; see Harpaz et al., 1992, p.86).

For example, the opinion that work is an obligation represents the person's belief that all people have a duty or responsibility to social units through working. Moreover, strong adherence to a norm of obligation may also be a statement of a personal sense of obligation; therefore, one would expect that this obligation work norm and work centrality will be positively related (MOW, 1987). According to the results of the MOW study and research by Rosenstiel (1989), people usually grow more conservative as they grow older. Although this may indeed apply for older people, for the young people in this study it was expected that they generally would become less dogmatic and adopt more differentiated ideas about life. In particular, it was expected that they would become more conscious of the fact that in present society unemployment is a reality for many people, and the norm toward work as an obligation is therefore expected to decrease with ageing.

A related societal norm about working refers to the importance people attach to the general striving toward more spare time and less work in society. Claes (1995) found that the importance attached to this aspect increases by age. People are increasingly busy and have more responsibilities when they become older and as a result they have less spare time. Therefore, it is expected that the norm toward spare time increases with age.

Another important work-related norm focuses on the desired role partition between men and women in the educational and labour fields. Because dual-career couples are a growing reality, and because recently much has been done in society to realise equal duties and rights for men and women, this has resulted in an increased labour force participation of women (MOW, 1987). As a result, the young adults in this study were expected to become more emancipated by ageing.

*Importance of Work Goals* may change by ageing. Previous research has demonstrated that there are large differences between people in evaluations of work goal domains. Following MOW (1987), a distinction was made between intrinsic, extrinsic, and social work values. Intrinsic work values focus on the degree to which people attach importance to immaterial aspects of their jobs that allow for self-expression, such as variety and autonomy in the job. Extrinsic work values focus on the degree to which people attach

importance to material or instrumental work aspects, such as salary and opportunity for promotion. Social work values refer to the importance of having social contacts with coworkers.

High intrinsic work values are regarded positively by most authors because they often lead to upward career mobility, striving toward complementary training, less unemployment (Andrisani, 1978), more satisfaction, and less turnover (Mobley, Griffith, Hand, & Meglino, 1979). Intrinsic work values, more than extrinsic ones, were found to be related to organisational commitment (Meyer & Allen, 1988; Putti, Aryee, & Liang, 1989) and to attempted job content innovation (Feij, Whitely, Peiró, & Taris, 1995). The MOW study (1987) showed that younger people generally strive toward having variation in their work and autonomy. In the study of Schulenberg et al. (1993), it was unexpectedly found that all work values slightly declined over a six-month period. The authors mention, among others, regression to the mean and seasonal effects as explanations for these declines. In contrast, in the study of Mortimer and Lorence (1979) intrinsic, as well as extrinsic, work values increased as a function of work autonomy and income, and rewarding occupational experiences were found to reinforce the same values that constituted the basis of earlier work selection. Social work values appeared to decrease, although the authors did not examine different age groups as in the present study.

The general hypothesis of the present study was that, as young people mature, they become more intrinsically, and less extrinsically, motivated to work. Moreover, although it seems reasonable to assume that when one is young, social contacts at work are important, it is expected that by growing older and starting a family of one's own, the importance of these contacts will decrease, because one also has to deal with extra social networks of other family members. This is supported by Claes (1995), who found a decrease in the social function of working as people age. The specific hypotheses of the present study may be summarised as follows:

1. When young adults grow older, work becomes more important for them, absolutely as well as relatively, and they attach less importance to work as an obligation and more to spare time. They also become more emancipated, more intrinsically, less extrinsically, and less socially motivated to work over time.
2. Young people show more change in work values and norms than older people.

With respect to the concept of change, following the studies of Van der Velde et al. (1995) and Van der Velde and Feij (1995), some attention should be paid to structural invariance by means of reliability analyses because stability of the scales by which work values and norms are measured is a

prerequisite of the other forms of stability or change. The major focus of this study was on normative change and change in the magnitude (level) of work values and norms. Normative change refers to the change of individual ranks of differences on work values and norms over time, which are shown in correlations over time. This form of change is independent of the level of scores of individuals on the work values: A uniform decrease or increase of all individuals has no effect on the correlation coefficients. Level change is the change in magnitude, or quantity, of work values over time. This form of change can be demonstrated by studying the means of work values and norms in two (or more) waves.

A possible confounding variable in this study was the existence of period or secular effects (see Costa & McCrae, 1988). These are relevant social-historical events which occurred between the measurement waves (Van der Werff, 1987). For example, if it is hypothesised that young people generally change positively over time because they grow older, and at the same time the labour market improves significantly between the measurement waves, people may also have changed positively because they obtained more opportunities to find a work situation in which they fit, grew, and were able to use their capabilities. Consequently, they may feel more appreciated and are more intrinsically motivated to work. Another example of a social-historical event is mentioned by Caspi and Bem (1990). They noted that part of the answer to the question of why changers change may be maturation and another part may be the pressure of social norms. If such social-historical events are neglected, determinants of personal change may be seen in individual processes of ageing, whereas, in fact, these changes could be ascribed to changes in society.

In the present study, however, there is no reason to assume the existence of period effects. During this study (1987–1991), according to reports of the Dutch Ministry of Social Affairs and Work (Ministerie van Sociale Zaken en Werkgelegenheid, 1987, 1991), the labour market situation did not significantly change. The study of Hagstrom and Gamberale (1995) also showed that the work value structure appeared to be rather unaffected by the economic recession. However, although period effects are assumed to be less strongly present than ageing effects, the present study examined whether work values are more strongly affected by ageing or by societal trends.

Another possible confounding factor is the existence of cohort effects, which are also mentioned in the literature as a cause of change (Appels, 1985; Lorence & Mortimer, 1985; Van der Werff, 1987). Cohort effects are also historical in nature and may occur when social change differentiates the life patterns of successive cohorts, or when specific influences, such as war, exert a relatively uniform effect across successive birth cohorts (cf. Caspi & Bem, 1990). A cohort is usually seen as a group of people who were born in a

clearly distinguishable historical period. The timing and direction of change is more or less the same for people of the same cohort and differs from those of others. For example, it is possible that people from a specific cohort made a career choice in times of economic growth and were less influenced by labour market stimuli and more by their own interests. As a result, work for them differs favourably from that of people in other cohorts who made the same choice in a period of economic malaise (Blossfeld & Hamerle, 1989). Beekes (1991) also mentioned that at the time of entry into the labour market, the economic situation may lead to the development of certain norms and values (e.g. regarding the meaning of work) that will remain throughout life, even when this situation changes.

In the present study, three different age groups (18-, 22-, and 26-year-olds) were tested. They differed in age by only four to eight years, and were therefore assumed to belong to the same generation. Consequently, the present study assumed that cohort effects were absent.

## METHOD

### Procedure and Sample

Data were collected as part of the research project entitled "The process of social integration among young adults" (Dijkstra, 1989, 1993). The purpose of this project was to examine how young adults participate in and integrate into society, and which personal and social factors facilitate this process.

The research design was longitudinal, with two waves: 1987 and 1991. Participants were Dutch young adults, male and female, who were 18, 22, or 26 years old in 1987. The sampling procedure consisted of two steps. First, 20 municipalities in The Netherlands, stratified to four regions and five levels of urbanisation, were drawn. Next, 2800 home addresses of persons in the aforementioned age groups were randomly selected from the registry offices in these municipalities. These persons received a letter in which their participation was requested.

In 1987, 1775 young adults completed a self-report questionnaire and were interviewed by trained interviewers, using a structured interview schedule. The sample was representative for the Dutch population in this age group, and they were in school, had a paid job, were unemployed, or took care of housekeeping.

In 1991, 1257 of the initial 1775 participants again responded. Taris, Van der Vaart, and Dijkstra (1993) concluded that at Time Two lower educated young adults participated slightly less than higher educated young adults when compared with the original sample. It must be concluded that at Time Two a somewhat less representative sample existed in comparison with Time One, at least with respect to educational level. With respect to sex, age, and socioeconomic status, no sample attrition effects were found, but it did



appear that those individuals who did not participate at Time Two regarded work more as a duty, were less emancipated, and valued work more extrinsically than those who participated in both waves. However, from partial correlations between these variables and groups (Time Two participants and nonparticipants) in which educational level was controlled, it appeared that differences between the two groups in values and norms disappeared. Therefore, educational level is controlled in the analyses.

From the 1257 who participated in both waves, 806 participants from the studies of Van der Velde et al. (1995) and Van der Velde and Feij (1995) were (re)used in this study. These participants indicated that they were in school or had a paid job at either Time One or Time Two. This subsample was used because the present study is regarded as an extension of the earlier studies. From these studies it became clear that transitions affected some characteristics of the participants. The purpose of the present study was to estimate the effect of ageing (and period). Because other factors were not allowed to distort the results (e.g. the effect of being or becoming unemployed), it was decided to restrict the study to the same participants. These subgroups were combined and divided over the three different age groups, and then reanalysed: 55% of the participants were male and 45% were female.

## Measures

In the present study, the following eight work-related values and norms were examined. Two measures of importance attached to work as a major life role (absolutely and relatively), three work-related norms, and three measures of importance attached to work goals. They were operationalised by multi-item scales in the self-report questionnaire. Most responses were gathered on a scale varying from 1 "Very little" to 5 "Very much". Detailed information on the sources of the scales used and the results of the factor analysis in which all items and scales were validated is given by Heesink (1992). In the next section, the scales are described and for each scale a representative sample item is given along with the reliability coefficients (Cronbach's  $\alpha$ ) of the scales in both waves.

*Absolute Work Centrality* refers to the general importance of work as a life role. An example of an item is "Would you be unhappy if you did not have or could not get a job?" The three items were scored on a 5-point scale which varied from (1) "Certainly not" to (5) "Certainly". Cronbach alphas were .62 at Time One and .66 at Time Two.

The scale *Relative Importance of Work* consists of four items regarding the likelihood that one will work, given four imaginary family situations which might arise depending on the degree and/or duration of family procreation. The questions were: "How likely do you consider it to be that one would

work in the following situations, in which one has (a) no children, (b) a family with young children at home (under six years old), (c) a family with older children at home (above six years old), and (d) a family in which the children have left the parental home?" The items were scored on a 5-point scale varying from 1 "Very unlikely" to 5 "Very likely". By means of these four questions it was assessed how important a person considered work to be, given the different family situations, even though they included many other roles such as being a partner and/or a parent. Alphas were .80 at Time One and .75 at Time Two.

*Obligation Work Norm* measures the importance one attaches to the idea that everybody in society has to work for a living (Mirels & Garrett, 1971; MOW, 1987; Ten Have & Jehoel-Gijsbers, 1985). Participants responded to four statements such as "Doing things as one pleases is only possible when one has done his duty". These were scored on a scale varying from 1 "Fully disagree" to 5 "Fully agree". Reliability analyses showed alphas of .59 and .62 for the two waves, respectively.

*Norm Toward Emancipation* focused on the desired role partition between males and females (Van der Avort, 1985). Participants responded to four statements such as "I think it is natural when a girl goes to technical school" (on the same scale as mentioned earlier). A low score indicated that one attaches importance to traditional roles for males and females. Alphas were .69 and .70 for Time One and Time Two, respectively.

*Norm Toward Spare Time* consisted of four questions regarding the importance of spare time in general (Buchholz, 1977). Responses were given to statements such as "More spare time and less working is good for people" (on the same scale). Alphas were .67 for Time One and .70 for Time Two, respectively.

Finally, specific work values were measured by three scales based on the categorisation of Ginzberg, Ginsburg, Axelrad, and Herma (1951) and the MOW (1987). The six items of the *Intrinsic Work Values* scale focused on the valuation of intrinsically rewarding aspects of work; for example, autonomy, variation, and responsibility. Reliability analyses showed an alpha of .65 (Time One) and .70 (Time Two). The seven items of the *Extrinsic Work Values* scale focused on the instrumental aspects of work, such as salary and opportunity for promotion. Alphas were .73 and .72 for the two waves, respectively. Finally, the six items of the *Social Work Values* scale focused on the importance one attaches to social aspects of work as, for example, good contacts with supervisor and coworkers and a good working climate. The answers were scored on a scale varying from 1 "Very unimportant" to 5 "Very important". Alphas were .67 at Time One and .72 at Time Two.

In sum, it appeared that Cronbach's  $\alpha$  of almost all scales were above .60, which, given the relatively small number of items of most scales, was

regarded as acceptable. An exception was Obligation Work Norm for which an  $\alpha$  of .59 at Time One and of .62 at Time Two was found. Furthermore, it appeared that most  $\alpha$ s were slightly higher at Time Two than at Time One.

## RESULTS

The purpose of the present study was to investigate the relative strength of the effects of age and period on change in work values and norms. Therefore, multiple analyses were performed according to the design of the present study, which may be found in Fig. 1.

First, the degree of change in work values and norms *within* the three age groups over time was analysed (longitudinal age effects; *slipping arrows b* in Fig. 1). The correlation coefficients of these variables over time (normative stability vs. change), as well as the mean scores on these variables over time (level stability vs. change), were studied. For both changes, differences between the age groups in the degree of change were analysed in order to determine whether the younger participants showed more change than the older participants. Secondly, differences in mean scores *between* the three age groups on the separate waves were studied. These are transversal (or cross-sectional) age effects (dotted lines *a* in Fig. 1).

When the results of the foregoing analyses showed that all three age groups changed significantly in the same degree and direction, it was not possible to conclude that ageing effects only were responsible, because period effects could also be present (i.e. individual values did not change as a consequence of ageing and maturation), but because the participants were affected by the same general changes in society. Although there was no reason to assume such effects, this alternative explanation was examined. Therefore, the mean scores on variables of participants of the same age, but in different waves, were studied. Participants who were 22 in 1987 were compared with participants who were 22 in 1991, and those who were 26 in 1987 were compared to 26-year-olds in 1991 (vertical arrows *c* in Fig. 1). These analyses focused on the change of values and norms in the period of the study with age kept constant. They showed that participants of the same age, but in different waves, differed less often in work values and norms than

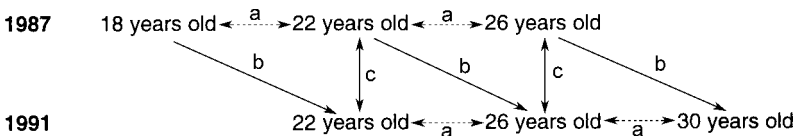


FIG. 1. Design of the study (*a*, transversal age effects; *b* ageing/maturation effects; *c*, period effects (societal trends)).

participants at different ages over time. It could thus be more firmly concluded that ageing, more than period, affected these changes.

### Ageing and Normative Change

Three age groups of participants, who were 18, 22, and 26 years old in 1987, were examined for normative and level change of work values and norms. The degree of normative change of work values and norms was determined by computing the correlation coefficients between two measures over time. In Table 1, these coefficients are presented for three age groups separately. By means of Fisher *Z*-transformation, testing was conducted to determine whether the correlation coefficients of the three age groups differed significantly.

Table 1 shows that all correlation coefficients of work values over time within the three age groups are significant ( $P < .001$ ). Coefficients vary from .27 (Relative Importance of Work) to .56 (Extrinsic Work Values) for the 18-year-olds; from .32 (Relative Importance of Work) to .61 (Norm toward Emancipation) for the 22-year-olds; and from .38 (Relative Importance of Work) to .68 (Norm toward Emancipation) for the 26-year-olds. The results from Table 1 further show that, for almost all work values and norms, the older participants had a higher coefficient than the younger participants. For three coefficients, these differences were significant: Absolute Work Centrality, Obligation Work Norm, and Emancipation Norm. For these variables, the relative rank order of the scores within the youngest age groups showed a stronger change than within the oldest group, which is in accordance with Hypothesis 2.

TABLE 1  
Tests of Differences Between Three Age Groups in Pearson Correlations<sup>a</sup> of  
Work Values at Time One and Time Two, using Fisher *Z*-transformation

	1	2	3	<i>P</i> ( <i>Z</i> )
Absolute Work Centrality	.32	.43	.57	.001
Relative Importance of Work	.27	.32	.38	n.s.
Obligation Work Norm	.39	.50	.57	.025
Emancipation Norm	.53	.61	.68	.024
Spare Time Norm	.49	.45	.56	n.s.
Intrinsic Work Values	.47	.50	.49	n.s.
Extrinsic Work Values	.56	.60	.58	n.s.
Social Work Values	.47	.47	.52	n.s.

<sup>a</sup>Note that all correlation coefficients are significant at  $P < .001$ .

1 = 18 rsp. age 22 ( $N = 295$ ); 2 = 22 rsp. age 26 ( $N = 262$ ); 3 = 26 rsp. age 30 ( $N = 249$ ).

## Level Change

Next, two multivariate analyses of variance were performed to examine differences between the three age groups in mean scores on work values and norms at two separate waves (transversal age effects). Results of these analyses are not given in a separate table but the mean scores can be found in Table 2.

The first MANOVA shows a significant  $F$ -value:  $F(16,1564) = 4.51$  ( $P = .000$ ). Results indicated that, at Time One, the three age groups differed in the mean scores on four work values and norms. The differences are in the direction predicted by Hypothesis 1: The 26-year-olds had a higher score for Relative Importance of Work than the 22 and 18-year-olds. The oldest age group had the highest score on Intrinsic Work Values and Norm toward Spare Time, followed by the middle and finally the youngest age group. The youngest group scored higher on Extrinsic Work Values than the middle and oldest group.

The second MANOVA, in which three age groups at Time Two were compared, also resulted in a significant  $F$ -value:  $F(16,1590) = 3.93$  ( $P = .000$ ). This time, the results showed that the three age groups differed in mean scores on only one work value: The oldest group had the highest score on Relative Importance of Work, followed by the middle and finally the youngest group. This result was also in the predicted direction.

Level change of work values and norms over time is determined by studying the mean scores at both times within the three age groups. Because these data are dependent, paired  $t$ -tests were used. It was also tested, by means of univariate analyses of variance, whether the differences between the age groups in changes in mean scores were significant. Results are presented in Table 2.

Table 2 shows that for many work values and norms the mean scores changed over time. Moreover, differences are present between the three age groups. For the 18-year-olds, scores on seven variables changed significantly over time; for the 22-year-olds, scores changed on five, and for the 26-year-olds, they changed on four work values and norms. In other words, as was the case for normative change, older groups changed less often than younger groups, which is again in line with Hypothesis 2.

Most changes were also consistent with the direction predicted by Hypothesis 1, as all three age groups had a higher score on Relative Importance of Work over time. It should be noted that for this variable, similar differences appeared between the age groups at separate waves (transversal age effects). All groups scored higher on Norm Toward Emancipation and Spare Time and these differences were also transversely present.

TABLE 2

Paired *t*-tests and ANOVAs.<sup>a</sup> Differences Within and Between Three Age Groups in Mean Scores on Work Values at Time One and Time Two

	1			2			3			<i>F</i>
	<i>TI</i>	<i>T2</i>	<i>t</i>	<i>TI</i>	<i>T2</i>	<i>t</i>	<i>TI</i>	<i>T2</i>	<i>t</i>	
Absolute Work Centrality	4.24 (.54)	4.26 (.68)	-.55	4.30 (.60)	4.22 (.66)	1.94	4.23 (.63)	4.20 (.67)	1.03	1.17
Relative Importance of Work	3.82 (1.01)	4.03 (.83)	-3.84***	3.85 (1.11)	4.17 (.87)	-5.04***	4.32 (.88)	4.43 (.69)	-2.21*	5.52***
Obligation Work Norm	3.02 (.77)	2.85 (.77)	3.49***	3.06 (.79)	2.92 (.78)	2.87**	2.93 (.81)	2.85 (.74)	1.82	.56
Emancipation Norm	3.89 (.84)	4.05 (.80)	-3.84***	3.94 (.84)	4.13 (.77)	-4.49***	4.03 (.79)	4.13 (.77)	-2.62**	.65
Spare Time Norm	2.37 (.65)	2.53 (.72)	-3.97***	2.46 (.75)	2.63 (.72)	-3.59***	2.53 (.78)	2.64 (.75)	-2.48*	.49
Intrinsic Work Values	3.97 (.41)	4.12 (.45)	-5.49**	4.04 (.46)	4.11 (.44)	-2.61**	4.09 (.46)	4.09 (.49)	-.10	2.88
Extrinsic Work Values	3.97 (.51)	3.91 (.55)	2.29*	3.86 (.52)	3.83 (.53)	1.15	3.89 (.49)	3.85 (.48)	1.32	.03
Social Work Values	4.35 (.43)	4.29 (.50)	2.05*	4.33 (.45)	4.31 (.45)	.65	4.29 (.46)	4.21 (.53)	2.71**	2.15

<sup>a</sup>In the ANOVAs, differences between three age groups are studied in mean scores at Time Two, controlling for score at Time One and level of education.

1 = 18 rsp. age 22 (*N* = 295); 2 = 22 rsp. age 26 (*N* = 262); 3 = 26 rsp. age 30 (*N* = 249).

\**P* < .05; \*\**P* < .01; \*\*\**P* < .001. (Standard deviations are in parentheses.)

On the other variables some, but not all three age groups, changed significantly in the predicted direction. The youngest group scored significantly lower on Extrinsic Work Values over time whereas the youngest and middle group had a lower score on Obligation Work Norm and a higher score on Intrinsic Work Values over time. The youngest and oldest groups scored lower on Social Work Values over time. However, mean scores on Absolute Work Centrality did not change significantly, although it was expected that for young people work would become more important as they grow older.

In conclusion, it appears from Tables 1 and 2 that generally for young adults, and more specifically for younger than for older young adults, work becomes more important, they attach less importance to work obligation, and more to spare time, they become more emancipated and more intrinsically and less extrinsically and socially motivated in work as they grow older.

### Period Effects

Because it appeared that for a number of work values and norms all three age groups changed in the same direction (e.g. they attached more relative importance to work and to spare time, and they became more emancipated in time), it should be assumed that indeed ageing/maturation effects, instead of period effects (or societal trends), are responsible for these changes. Therefore, the mean scores on values of 22-year-olds in 1987 were compared with those of 22-year-olds in 1991 and the mean scores of 26-year-olds in 1987 were compared with those of 26-year-olds in 1991 by means of *t*-tests. Finally, univariate analyses of variance were performed according to the method of Williams (1991). By means of this method, it was examined whether the difference between the differences of the 22-year-olds and of the 26-year-olds was significant, while controlling for the fact that the data of 22-year-olds at Time One and 26-year-olds at Time Two are dependent, whereas the other age groups are independent. The results of these analyses are given in Table 3.

Table 3 shows that the 22-year-olds in 1987 and 1991 differed significantly in the mean scores on four work values, and the 26-year-olds in 1987 and 1991 on one work value. This indicates that young people in the same age group, but in different waves, differed less often than different age groups over time, as shown earlier in Table 2. For Absolute Work Centrality, Norm Toward Emancipation, Spare Time and Extrinsic Work Values, no differences were found for both age groups between 1987 and 1991. Because it was shown earlier (see Table 2) that young people, as they became older, became more emancipated, attached more importance to spare time, and became less extrinsically motivated to work, it can now be ascertained with

TABLE 3

*t*-tests and ANOVAs.<sup>a</sup> Differences Between Two Groups with the Same Age on Different Waves in Mean Scores on Work Values.

	22 T1	22 T2	<i>t</i>	26 T1	26 T2	<i>t</i>	<i>F</i>
Absolute Work Centrality	4.30 (.60)	4.26 (.68)	-.78	4.23 (.63)	4.22 (.66)	-.24	n.s.
Relative Importance of Work	3.85 (1.11)	4.02 (.83)	2.04***	4.32 (.86)	4.16 (.87)	-1.98*	8.69**
Obligation Work Norm	3.06 (.78)	2.85 (.77)	-3.17**	2.93 (.84)	2.92 (.78)	-.10	4.46*
Emancipation Norm	3.94 (.84)	4.05 (.80)	1.51	4.03 (.80)	4.13 (.77)	1.34	n.s.
Spare Time Norm	2.46 (.75)	2.53 (.72)	1.20	2.53 (.78)	2.63 (.72)	1.52	n.s.
Intrinsic Work Values	4.04 (.48)	4.12 (.45)	1.97*	4.09 (.45)	4.12 (.44)	.61	n.s.
Extrinsic Work Values	3.86 (.52)	3.91 (.55)	1.04	3.89 (.50)	3.83 (.53)	1.34	n.s.
Social Work Values	4.33 (.45)	4.29 (.50)	-.81*	4.29 (.45)	4.31 (.45)	.35	n.s.

<sup>a</sup>In the ANOVAs, it is corrected that data of 22-years-old at Time One and of 26-years-old at Time Two are dependent (Williams, 1991).

22 T1 ( $N = 262$ ); 22 T2 ( $N = 295$ ); 26 T1 ( $N = 249$ ); 26 T2 ( $N = 262$ ).

\* $P < .05$ ; \*\* $P < .01$ ; \*\*\* $P < .001$ . (Standard deviations are in parentheses.)

greater certainty that ageing effects are responsible for change of these values. With respect to Absolute Work Centrality, neither ageing nor period trends appeared to play a role.

Finally, for four values and norms (Intrinsic and Social Work Values, Relative Importance of Work, and Obligation Work Norm) differences existed only between 22-year-olds in 1987 and 1991, or only between 26-year-olds in 1987 and 1991, and not for both age groups simultaneously. The exception was Relative Importance of Work, as on this variable the groups differed in a different direction. This result is difficult to interpret. However, ageing clearly has an effect, and societal trends may also play a role for these work values. Moreover, a ceiling effect may also be present.

It must be concluded from the results shown in Table 3 that, in correspondence with the hypotheses, for young adults most work values and norms change positively. This change is mainly a result of growing older, and less a result of societal trends.

## DISCUSSION

In the present study, changes in eight work values and norms over a period from 1987 to 1991 were examined in a sample of three different age groups of young adults in The Netherlands. The first hypothesis, proposing that these values toward work change positively, is for the most part confirmed. It indeed appeared that the expected longitudinal changes in work values and norms were present, but not for all work values and norms, and not for all



three age groups in the same degree. Moreover, for some values, differences were also transversely present (i.e. differences between age groups at the separate waves).

The second hypothesis, stating that younger age groups change more than older age groups, was confirmed. It appeared from the results of this study that the younger groups generally showed lower correlation coefficients and more significant changes in mean scores on work value scales than the older age groups.

The changes in work values and norms were all in the direction predicted by Hypothesis 1: All age groups found it more likely, over time, that they would work in different specific family situations, such as when they have no family, or a family with children under or above six years of age. All age groups became more intrinsically motivated to work over time and they attached more importance to Emancipation and Spare Time, and less to Work Obligation, while becoming less extrinsically and socially motivated to work over time. Apparently, when young adults grow older they increasingly value intrinsically motivating work aspects or work goals and decreasingly value status, money, and social contacts at work. It was demonstrated that this positive change of most work values and norms is mainly a result of growing older, and less a result of societal trends.

Further, it was found that absolute work centrality did not change over time. Other researchers (MOW, 1987) regard absolute work centrality as a relatively stable variable. However, although the mean scores on work centrality did not change, it appeared that work centrality *did* change normatively (i.e. the relative rank order of individual scores changed). These different results with respect to normative and level change may possibly be explained by the fact that for some people work becomes more central, and for others less central, and as a result the mean scores on this variable for the age groups remained unchanged. For example, work centrality may have changed differently for those who were in school in both waves and for those who left school and found a job. However, from the study of Van der Velde et al. (1995), this appeared not to be the case and there were no differences between the groups in the (relatively low) correlation coefficients. Moreover, the mean scores did not change significantly for either group. However, at Time Two, participants who left school for work had a higher level of work centrality than participants who stayed in school. This indicates that it is useful to study the same group in different ways (transition and age groups, see Method) in order to discover the most likely determinant of change in work values. However, it is not always possible to distinguish between the effects of ageing and transitions because they correlate to a large extent. For example, the school-to-work transition can only be made from a certain age due to the obligatory school period. Therefore, in some age groups, transitions will more likely occur than in other age groups. The

same applies for studying different transition groups that may differ in age. It is possible that these differences in age explain differences in change between transition groups because ageing processes are always present in longitudinal studies.

Another possibility is that gender differences exist. If for males absolute work centrality increases, and for females the absolute importance of work decreases, no overall change in mean scores on work centrality will be found. However, post-analyses showed that the reverse was true. For males, attachment to work decreased significantly, whereas females overall did not change significantly with respect to work centrality.

Generally, these findings show the advantage of studying different forms of change variables in combination, because it generates more information on the way in which people change. Schulenberg et al. (1993) have argued for a combination of developmental and individual difference perspectives on work value change in career theory and practice. Caspi and Bem (1990) proposed that individual differences should be most evident in the life course when individuals are required to enter new relationships and assume new roles. Costa and McCrae (1988; cf. Caspi & Bem, 1990) concluded that maturational changes have little effect on the ordering of individual differences in adulthood after age 30, but that mean levels of scores on some characteristics do change. It may be possible that maturation effects are slow and gradual and can be observed best in changes in the mean level of scores on values and norms, whereas transitions may have an *ad hoc* impact on people. These may either be inhibiting or disinhibiting, depending on the type of the transition, and they may be shown via changes in correlation coefficients.

In summary, it can be concluded from the present study that, as predicted, work in general, and especially intrinsic work values of young adults, become more important over time. Moreover, it appears to be the case that the younger the individual, the more change is likely. These changes in work values and norms are more strongly affected by ageing, growing, and maturation, than by societal trends in the present study.

### Limitations of this Study and Future Research

Some remarks should be made with respect to the specific period of four years, 1987–1991, used in this study. An advantage of this time-span was that testing (or reminiscence or practise, see Costa & McCrae, 1988) effects were absent in comparison with shorter periods (e.g. six months in the study of Schulenberg et al., 1993). However, this time-span may be too short to discover clearly societal trends. In the present study, no significant changes in the labour market or other important societal changes, such as social unrest or natural disasters, were expected and found in this period. It is

possible that in other time periods, for example, when the no-nonsense eighties are compared to the nineties, in which people increasingly seek a balance between work and their private life, effects of changing societal circumstances on people could be discovered above general ageing processes. For example, work could be absolutely, as well as relatively, regarded as less important.

In this respect, it should be noted that in the present study only simple main effects were examined. Although interaction effects may also be present, they may offset each other. For example, it is possible that ageing and period effects occur simultaneously and they rule each other out. Although, normally, young people develop positively, this development could be inhibited by negative events in society. In any case, such effects would be difficult to disentangle.

Another possibly related factor, which was mentioned earlier, is cohort effects. We neither expected, nor found, these effects to be present because the participants only differed in age from four to eight years, and as a result they can be seen as belonging to the same cohort. Future research may, therefore, focus on differences in work value change between different, more widely separated, cohorts.

Finally, it must be noted that these results apply only for young adults in the Dutch situation. It is difficult to compare and interpret research findings across cultures because they may differ in social and economical circumstances and processes to a large extent. For example, cultures may differ in the degree to which they foster achievement (e.g. in some cultures, working is regarded as an abstract concept), whereas elsewhere work is seen as a necessary evil (MOW, 1987). Further research may help to clarify the effects of cultural environments on value preferences (Elizur, Magyari-Beck, Singh-Sengupta, Tchaicovsky, & Yamauchi, 1996).

Manuscript received 15 May 1997

Revised manuscript received 15 October 1997

## REFERENCES

- Andrisani, P.J. (1978). *Work attitudes and labor market experience*. New York: Praeger.
- Appels, A. (1985). Het panorama van Marcoen [The panorama of Marcoen]. In J.J.F. Schroots (Ed.), *Levensloopsychologie* [Life span psychology] (pp. 49–58). Lisse: Swets & Zeitlinger.
- Bachman, J.G., O'Malley, P.M., & Johnston, J. (1978). *Youth in transition: Adolescence to adulthood—change and stability in the lives of young men* (Vol. VI). Ann Arbor, MI: Institute for Social Research, University of Michigan.
- Beekes, A. (1991). *De hordenloop. Ontwikkelingen in de achterstand van vrouwelijke op mannelijke academici aan Nederlandse universiteiten in de periode 1960–1985* (Academisch Proefschrift) [The hurdle-race. Developments in the distance of female to male academics in Dutch universities in the period 1960–1985]. Utrecht: ISOR.

- Bergman, L.R., Eklund, G., & Magnusson, D. (1991). Studying individual development: Problems and methods. In D. Magnusson, L.R. Bergman, G. Rudinger, & B. Torestad (Eds.), *Problems and methods in longitudinal research: Stability and change* (pp. 1–27). Cambridge, UK: Cambridge University Press.
- Blau, G. (1989). Testing the generalizability of a career commitment measure and its impact on employee turnover. *Journal of Vocational Behavior*, 35, 88–103.
- Blossfeld, H.P., & Hamerle, A. (1989). Unobserved heterogeneity in hazard rate models: A test and an illustration from a study of career mobility. *Quality and Quantity*, 23, 129–141.
- Brett, J.M. (1982). Job transfer and wellbeing. *Journal of Applied Psychology*, 67, 450–463.
- Buchholz, R.A. (1977). The belief structure of managers relative to work concepts measured by a factor analytic model. *Personnel Psychology*, 30, 567–587.
- Caspi, A., & Bem, D.J. (1990). Personality continuity and change across the lifecourse. In L.A. Pervin (Ed.), *Handbook of personality: Theory and research* (pp. 549–575). New York: Guilford Press.
- Claes, R. (1995). *Betekenis en waarde van werken*. Verslag aan de Koning Boudewijn Stichting. Universiteit Gent: Vakgroep Personeelsbeleid, Arbeidsen Organisatiepsychologie.
- Clarke, L. (1980). *Occupational choice: A critical review of research in the UK*. London: HMSO, Careers Service Branch. Department of Employment.
- Costa, P.T., Jr., & McCrae, R.R. (1980). Still stable after all these years: Personality as a key to some issues in aging. In P.B. Baltes & O.O. Brim, Jr. (Eds.), *Life-span development and behavior* (Vol. 3, pp. 65–102). New York: Academic Press.
- Costa, P.T., & McCrae, R.R. (1988). Personality in adulthood: A six-year longitudinal study of self-reports and spouse ratings on the NEO personality inventory. *Journal of Personality and Social Psychology*, 54, 853–863.
- Dijkstra, W. (Ed.). (1989). *Het proces van sociale integratie van jong-volwassenen: De gegevensverzameling voor de eerste hoofdmeting* [The process of social integration among young adults: The data-collection of the first wave]. Amsterdam: Vrije Universiteit Boekhandel/Uitgeverij.
- Dijkstra, W. (Ed.). (1993). *Het proces van sociale integratie van jong-volwassenen: De tussenmeting en de tweede hoofdmeting* [The process of social integration among young adults: The second and third wave]. Amsterdam: Vrije Universiteit Boekhandel/Uitgeverij.
- Dubin, R., & Champoux, J.E. (1977). Central life interests and job satisfaction. *Organizational Behavior and Human Performance*, 18, 366–377.
- Elizur, D., Magyari-Beck, I., Singh-Sengupta, S., Tchaicovsky, F.M., & Yamauchi, H. (1996). The structure of life and work values in five countries. In V.V. Baba (Ed.), *Work values and behaviour: Research and applications. Proceedings of the Fifth International Conference on Work Values and Behavior* (pp. 40–49). Montreal, Canada: ISSWOV.
- England, G.W., & Elizur, D. (1996). The structure of work values in the meaning of working study. In V.V. Baba (Ed.), *Work values and behaviour: Research and applications. Proceedings of the Fifth International Conference on Work Values and Behavior* (pp. 11–19). Montreal, Canada: ISSWOV.
- Feij, J.A., Whitely, W.T., Peiró, J.M., & Taris, T.W. (1995). The development of career-enhancing strategies and content innovation: A longitudinal study of new workers. *Journal of Vocational Behavior*, 46, 231–256.
- Ginzberg, E., Ginsburg, S.W., Axelrad, S., & Herma, J.L. (1951). *Occupational choice: An approach to a general theory*. New York: Columbia University Press.
- Hagstrom, T., & Gamberale, F. (1995). Young people's work motivation and value orientation. Special issue: "Adolescent research: A European perspective". *Journal of Adolescence*, 18, 475–490.
- Harpaz, I., Claes, R., Depolo, M., & Ruiz Quintanilla, A. (1992). Meaning of work of career starters. *Revue Internationale de Psychologie Sociale*, 5, 81–104.

- Heesink, J.A.M. (1992). *Uitgeschoold ingeschaald Loopbaanontwikkeling en psychisch welzijn van jong-volwassenen (v/m)* [Out of school, into work. Career development and psychological well-being of young adults f/m]. Thesis Vrije Universiteit Amsterdam. Groningen: Universiteitsdrukkerij.
- Jans, N.A. (1989). Organizational commitment, career factors and career/life stage. *Journal of Organizational Behavior*, 10, 247–266.
- Krau, E. (1983). The attitudes toward work in career transitions. *Journal of Vocational Behavior*, 23, 270–285.
- Krau, E. (1989). The transition in life domain salience and the modification of work values between high school and adult employment. *Journal of Vocational Behavior*, 34, 100–116.
- Lee, T.W., & Mowday, R.T. (1987). Voluntarily leaving an organization: An empirical investigation of Steers & Mowday's model of turnover. *Academy of Management Journal*, 30, 287–310.
- Lorence, J., & Mortimer, J.T. (1985). Job involvement through the life course: A panel study of three age groups. *American Sociological Review*, 50, 618–638.
- Magnusson, D. (1990). Personality development from an interactional perspective. In L.A. Pervin (Ed.), *Handbook of personality theory and research* (pp. 193–222). New York: Guilford Press.
- Magnusson, D., & Bergman, L.R. (1990). *Data quality in longitudinal research*. Cambridge, UK: Cambridge University Press.
- Meltzer, H. (1963). Age differences in happiness and life adjustment of workers. *Journal of Gerontology* 18, 66–70.
- Meyer, J.P., & Allen, N.J. (1988). Links between work experiences and organizational commitment during the first year of employment: A longitudinal analysis. *Journal of Occupational Psychology*, 61, 195–209.
- Ministerie van Sociale Zaken en Werkgelegenheid (1987). *Rapportage Arbeidsmarkt 1987* [Report labour market 1987]. 's Gravenhage.
- Ministerie van Sociale Zaken en Werkgelegenheid (1991). *Rapportage Arbeidsmarkt 1991* [Report labour market 1991]. 's Gravenhage.
- Mirels, H., & Garrett, J. (1971). Protestant work ethic as a personality variable. *Journal of Consulting and Clinical Psychology*, 36, 40–44.
- Mobley, W.H., Griffith, R.W., Hand, H.H., & Meglino, B.M. (1979). Review and conceptual analysis of the employee turnover process. *Psychological Bulletin*, 86, 493–522.
- Mortimer, J.T., & Lorence, J. (1979). Work experience and occupational value socialization: A longitudinal study. *American Journal of Sociology*, 84, 1361–1385.
- Mortimer, J.T., Lorence, J., & Kumka, D.S. (1986). *Work, family and personality: Transition to adulthood*. Norwood, N.J.: Ablex.
- MOW International Research Team. (1987). *The meaning of work: An international perspective* London: Academic Press.
- Nicholson, N. (1984). A theory of work role transitions. *Administrative Science Quarterly*, 29, 172–191.
- Pryor, R.G.L. (1980). Some types of stability in students' work values. *Journal of Vocational Behavior*, 16, 147–157.
- Putti, J.M., Aryee, S., & Liang, T.K. (1989). Work values and organizational commitment: A study in the Asian context. *Human Relations*, 42, 275–288.
- Rosenstiel, L., von (1989). Selektions- und Sozialisierungseffekte beim Übergang vom Bildungs- ins Beschäftigungssystem. *Zeitschrift für Arbeits- und Organisationspsychologie*, 33, 21–32.
- Schulenberg, J., Vondracek, F.W., & Kim, J.R. (1993). Career certainty and short-term changes in work values during adolescence. *Career Development Quarterly*, 41, 268–284.
- Taris, A.W., Van der Vaart, W., & Dijkstra, W. (1993). Nonresponse en representativiteit van de follow-up metingen [Nonresponse and representativity of the waves]. In W. Dijkstra

- (Ed.), *Het proces van sociale integratie van jong-volwassenen: De tussenmeting en de tweede hoofdmeting* [The process of social integration among young adults: The second and third wave.] (pp. 65–76) Amsterdam: Vrije Universiteit Boekhandel/Uitgeverij.
- Ten Have, K., & Jehoel-Gijsbers, G. (1985). *Werkloze jongeren: Een verloren generatie?* [Unemployed young people: A lost generation?] Tilburg: IVA, Katholieke Universiteit Tilburg.
- Tiggemann, M., & Winefield, A.H. (1989). Predictors of employment, unemployment and further study among school-leavers. *Journal of Occupational Psychology*, 62, 213–221.
- Van der Avort, A.J.P.M. (1985). *Twee relaties: Van stilzwijgend instituut tot kwetsbaar contract. Een sociografie van hedendaagse paarrelaties* [Two relations: From silent institute to vulnerable contract. A sociography of current partner relationships.] Tilburg: Subfaculteit Sociaal-Culturele Wetenschappen.
- Van der Velde, E.G., Feij, J.A., & Taris, A.W. (1995). Stability and change of person characteristics among young adults: The effect of the transition from school to work. *Personality and Individual Differences*, 18, 89–99.
- Van der Velde, E.G., & Feij, J.A. (1995). Change of work perceptions and outcomes as a result of voluntary and involuntary job change. *Journal of Occupational and Organizational Psychology*, 68, 273–290.
- Van der Werff, J.J. (1987). De stabiliteit van persoonskenmerken [Stability of personal characteristics]. In W. Koops & J.J. van der Werff (Eds.), *Overzicht van de empirische ontwikkelingspsychologie I. Grondkenmerken van het vak* [Review of empirical developmental psychology. Basic characteristics of the discipline] (pp. 149–182). Groningen: Wolters-Noordhoff.
- Verhofstadt-Deneve, L. (1985). Levenslooppyschologie: Meer dan een normatief beschrijvende discipline [Life span psychology: More than a normative descriptive discipline]. In J.J.F. Schroots (Ed.), *Levenslooppyschologie* [Life span psychology] (pp. 33–47). Lisse: Swets & Zeitlinger.
- Vondracek, F.W., Lerner, R.M., & Schulenberg, J.E. (1986). *Career development: A life-span developmental approach*. Hillsdale, N.J.: Erlbaum.
- Wanous, J.P. (1992). *Organization entry. Recruitment selection, orientation and socialization of newcomers* (2nd ed.). Reading, MA: Addison-Wesley.
- West, M., Nicholson, N., & Arnold, J. (1987). Identity changes as outcomes of work–role transitions. In T. Honess & K. Yardley (Eds.), *Self and identity: Perspectives across the life span* (pp. 287–303). London: Routledge.
- Williams, J.D. (1991). Age, cohort and period in life-span research: A three-way analysis with logically missing cells. *Multivariate Behavioral Research*, 26, 631–654.

Copyright of International Journal of Behavioral Development is the property of Psychology Press (T&F) and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.